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U.S. Army Electronics Research and Development Laboratory

## U. S. ARMY ELECTRONICS RESEARCH AND DEVELOPMENT LABORATORY FORT MONMOUTH, NEW JERSEY

1 JANUARY 1963

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#### PUBLICATIONS, PRESENTATIONS AND PATENTS

I JANUARY 1963

U. S. ARMY ELECTRONICS RESEARCH AND DEVELOPMENT LABORATORY
FORT MONMOUTH, NEW JERSEY

The following listing of unclassified publications, presentations and patents by personnel of USAELROL ouring the calendar year 1962 is another of the annual listings published to consolidate some of the technical contributions hade by USAELROL personnel. Publications from contractually supported research programs have not been included. A listing of USAELROL sponsored symposia is also included in this report.

## PUBLICATIONS AND PRESENTATIONS JANUARY 1962 THROUGH DECEMBER 1962

- I. "MANAGEMENT OF EQUIPMENT RELIABILITY ACTIVITIES AT USASRDL" EDWARDS, T. J., NACHMIAS, H. M., PRESENTED AT THE 8TH
  NATIONAL SYMPOSIUM ON RELIABILITY AND QUALITY CONTROL,
  WASHINGTON, D. C., 9 JANUARY 1962, AND PUBLISHED IN THE
  PROCEEDINGS.
- 2. "ELECTROCHEMICAL ENERGY CONVERSION" DANIEL, A. F., PRE-SENTED BEFORE THE METROPOLITAN SECTION OF THE ELECTRO-CHEMICAL SOCIETY, NEW YORK, NEW YORK, 10 JANUARY 1962.
- 3. "Some Simple Models for a Solid with Electron Surface States" Gaule, G. K., presented at the Solid State Seminar, New York University, New York, 10 January 1962.
- 4. "MILITARY APPLICATIONS OF NEW SOLID STATE DEVICES" JACOBS, H., PRESENTED AT A GUEST LECTURE TO THE JUNIOR
  CLASS, U. S. MILITARY ACADEMY, WEST POINT, NEW YORK,
  20 JANUARY 1962.
- 5. "Condensation Nuclei Seeding A Tool of Weather Research and the Signal Corps Arctic Meteorological Research Program" Weickmann, H., presented before the Meteorological Society, New York, 22 26 January 1962.
- 6. "POLYTYPISM AND RELATED PHENOMENA IN THE SOLID SYATE" KOHN, J. A., PRESENTED AT THE IBM SOLID SYATE" JAEMISTRY SEMINAR, COLUMBIA UNIVERSITY, NEW TORK, 24 JANUARY 1962.
- 7. "THE MAGNESIUM OXIDE-TYPE COLD CATHODE; PRESENT STATUS AND ASPECTS OF FURTHER ADVANCEMENT" DOBISCHEK, D., PRESENTED AT THE MEETING OF THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS, New York, New York, 31 January 1962.
- 8. "Electrofluorescence of Ruby Powder" Adams, 1. AuCoin, T. R., Mellichamp, J. W., Published in the Journal of Applied Physics, January 1962.

- 9. "The Relation of Magnetic Micropulsations to Electric-Current and Space-Charge Systems in the Lower Ionosphere" Bomke, H. A., published in the Journal of Geophysical Research, January 1962.
- 10. "CERENKOV RADIATION SPECTRA FOR A COLD MAGNETOACTIVE PLASMA"JOHNSON, P. S., PUBLISHED IN THE PHYSICS OF FLUIDS, JANUARY
  1962.
- 11. "Frequency Doubling Using Ferrite Slabs, Particularly Planar Ferrites" Bady, 1., published in IRE Transactions on Microwave Theory and Techniques, January 1962.
- 12. "OPTICAL TECHNIQUES AND THE SPECTRUM PROBLEM" WAY, K. J. PUBLISHED IN SIGNAL, JANUARY 1962.
- 13. "Finitely Generated Pathological Extensions of Different Fields"
  Banditt, A. E. Jr., Published in Transactions of the American
  Mathematical Society, January 1962.
- Novel Method to Orient Ferrimagnetic Single-Crystal Spheres"
  Auer, M., Published in IRE Transactions on Microwave Theory
  and Techniques, January 1962.
- 15. "Influence of Image Motion on the Resolution of a Photographic System" Paris, D. P. Published in Photographic Science and Engineering, January-February 1962.
- 16. MISCAN-INERTIALESS STEERABLE COMMUNICATION ANTENNA" BREUCKMANN, H., PUBLISHED IN 1962 IRE INTERNATIONAL CONVENTION RECORD, PART 1.
- 17. "Dielectric Rods and Single-Wire Transmission" Gousau, G. Published in Encyclopedia of Electronics, 1962.
- 18. "Some Characteristics of Electromagnetic Wavebeams" Goubau, G. Published in Madison: University of Wisconson Press, 1962.
- 19. "ELECTROMAGNETIC WAVEGUIDES AND CHARACTERS" GOUBAU, G., HONERJAEGER, R., MUELLER, R., PUBLISHED IN PERGAMON PRESS, 1962.

- 20. "Relation of Magnetic Micropulsations to Electric Current and Space-Charge Systems in the Lower Tonosphere" Buser, R., published in 1962 Journal of Physical Research #67.
- 21. RADIATION PHYSICS" KRONENBERG, S., PRESENTED AT REMSSE-LAER POLYTECHNIC INSTITUTE, TROY, NEW YORK, 8 FEBRUARY 1962.
- 22. "Solid State Lasers" Jacobs, H., Presented at the Committee Meeting of the Electronics Subpanel, Army Scientific Advisory Panel, Washington, D. C., 12 February 1962.
- 23. "THE LIGHTHING DISCHARGE" KASEMIR, H. W., PRESENTED AT THE SEVERE STORM CONFERENCE, UNIVERSITY OF OKLAHOMA, NORMAN, OKLAHOMA, 13 FEBRUARY 1962.
- 24. "ARMY TRACKING AND COMMAND OF SPACECRAFT" ZWEIGBAUM, H., PUBLISHED IN THE PROCEEDINGS OF THE INSTITUTE OF AEROSPACE Sciences, 19-21 February 1962.
- 25. "Preparation and Evaluation of Silicon Monoxide Thin Film Capacitors" Degenhart, H. J., Pratt, I. H., presented at the Electrical Insulation Conference, Washington, D. C., 22 February 1962 and published in the Proceedings.
- 26. "Super Power Generation at Microwave Frequencies" D'Andrea, J. presented at the NATO Conference on Microwave Techniques, Paris, France, 5 9 March 1962.
- 27. "REVIEW OF SOLID STATE DEVICES IN MICROWAVE APPLICATIONS" HAMBLETON, G., PRESENTED AT THE NATO CONFERENCE ON MICRO-WAVE TECHNIQUES, PARIS, FRANCE, 5 9 MARCH 1962.
- 28. "TCHEBYSHEFF POLYNOMIALS; SOME THEOREMS AND THEIR APPLICATION"
  BISER, E., PRESENTED AT THE MEETING OF MONMOUTH COLLEGE
  FRIENDS OF MATHEMATICS, MONMOUTH COLLEGE, WEST LONG BRANCH,
  NEW JERSEY, 12 MARCH 1962.

- 29. "COMPONENT PARTS RELIABILITY PROGRAMS IN USASROL" GRUOL, J. PRESENTED AT THE SIGNAL CORPS RELIABILITY STEERING COMMITTEE MEETING, USASIMSA, 14 MARCH 1962.
- 30. "Spherical Optical Resonator" Katzman, M., Presented at the meeting of the Optical Society of America, Washington, D. C., 16 March 1962.
- 31. "RADIATION PROBLEMS IN ELECTRON TUBES" KAPLAN, L. L., SAELENS, R. G., PRESENTED AT THE AEROSPACE INGUSTRIES ASSOCIATION MEETING, 23 MARCH 1962.
- 32. "New Microwave Techniques in the Measurement of Semiconductor Phenomena" Jacobs, H., Brand, F. A., Meindl, J. D., Weitz, S., presented at the IRE Convention, New York, 23 26 March 1962.
- 33. "A MOTION-ENHANCEMENT DISPLAY BY TIME-COMPRESSION" CROST, M.E., PRESENTED AT THE IRE CONVENTION, 23 26 MARCH 1962.
- 34. "FEASIBILITY STUDY OF CHAFF COMMUNICATION" (Bower, L. H. OF RADIATION, INC.), SHARP, C. E., HERRING, R. N., PRESENTED AT IRE CONVENTION, NEW YORK, 24 MARCH 1962.
- 35. "ISCAN-INERTIALESS STEERABLE COMMUNICATION ANTENNA" BRUECKMANN, H., (GOUBER, T. AND BRAMBLE, C. OF AVCO).,
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- 36. "SPIN WAVE EXCITATION IN PLANAR FERRITES" BADY, 1. (SCHLOMAN, E. OF RAYTHEON MEG CO), PUBLISHED IN THE JOURNAL OF APPLIED PHYSICS SUPPLEMENT, MARCH 1962.
- 37. "New Method of Producing Platinum Preshadowed Carbon Substrates"
  Cook, C. F. Jr., Published in the Review of Scientific Instruments, March 1962.

- 38. "Generation of Infrasound by Ocean Waves" Daniels, F. B. Published in the Journal of the Acoustical Society of America, March 1962.
- 39. "High-Power Characteristics of Single-Crystal Ferrites with Planar Anisotropy" Dixon, S. Jr., published in the Journal of Applied Physics Supplement, March 1962.
- 40. "Fine-Grained Ferrites II. N<sub>1</sub> ZN<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub>" Malinofsky, W.W., Babbitt, R. W., Sands, G. C., published in the Journal of Applied Physics Supplement, March 1962.
- Thermoelectric Properties of Some Cerium Sulfide Seniconouctors from 40 to 13000K" - Ryan, F. M., Greenberg, 1. N. (Carter, F. L and Miller, R of Westinghouse), published in the Journal of Applied Physics, March 1962.
- 42. "Growth of Single-Crystal Hexagonal Ferrites Containing Zn" Tauber, A., Savage, R., Ganbino, R., Whinfrey, C., published in the Journal of Applied Physics Supplement, March 1962.
- 43. "An ELECTRONIC METHOD FOR STEERING THE BEAM AND POLARIZATION OF HF ANTENNAS" VOGT, G., PUBLISHED IN THE TRANSACTIONS ON ANTENNAS AND PROPAGATION, MARCH 1962.
- 44. "CORRELATION OPTICAL RADAR" KATZMAN, M., FROST, E., PRE-SENTED AT SADTC-NATO SYMPOSIUM, THE HAGUE, NETHERLANDS, 3 - 4 APRIL 1962.
- 45. "SPHERICAL OPTICAL RESONATOR" KATZMAN, M., LEIFSON, O., LT. PRESENTED AT THE SADTC-NATO SYMPOSIUM, THE HAGUE, NETHER-LANDS, 3 4 APRIL 1962.
- 46. "New Power Sources and Energy Converters" Linden, D., Pub-
- 47. "ADVENTURES IN THE ANTARCTIC" WAITE, A. H., PRESENTED AT ADVANCED OFFICER'S COURSE THE SIGNAL SCHOOL, 18 APRIL 1962.

- 48. "THE HEART BEAT OF SPACE" DANIEL, A. F., PRESENTED AT REDDING LECTURE, MONTHLY MEETING, FRANKLIN INSTITUTE, PHILADELPHIA, PENNSYLVANIA, 18 APRIL 1962.
- MREVIEW OF U. S. METEOROLOGICAL ROCKET NETWORK ACTIVITIES AND RESULTS" AUFM KAMPE, H. J., PRESENTED AT THE INTERNATIONAL SYMPOSIUM ON ROCKET AND SATELLITE METEOROLOGY, WASHINGTON, D. C., 23 APRIL 1962.
- 50. \*\*Dielectric Study of Cadmium Niobate and Computation of Specific Heat Anomaly\*\* DeBretteville, A. P., presented at the American Physical Society Meeting, Washington, D. C., 23 26 April 1962.
- 51. "Causes of Internal Friction in Crystal Resonators" HAFNER, E., PRESENTED AT THE 16TH ANNUAL FREQUENCY CONTROL
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- 53. "THREE DIMENSIONAL PRINTED WIRING MODULES" LANE, W. V. PRESENTED AT THE ETCHED CIRCUIT SOCIETY MEETING, GREEN-WICH, CONNECTICUT, 25 APRIL 1962.
- THE COMING ERA OF MICROELECTRONICS" MEINDL, J. D., TOBMAN,
  M., PRESENTED AT THE 16TH ANNUAL FREQUENCY CONTROL SYMPOSIUM,
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- 55. "Measurement of the Parameters of High Frequency Filter Crystals" Priebe, F. K., Presented at the 16th Annual Frequency Control Symposium, Atlantic City, New Jersey, 26 April 1962 and published in the Proceedings.

- THEORY OF TIME KEEPING IN SPACE" SACHS, R. K. PRESENTED AT THE 16th Annual Frequency Control Symposium, Atlantic City, New Jersey, 26 April 1962 and published in the Proceedings.
- 57. "SPECTRAL DISTRIBUTION OF INDUCED AND SPONTANEOUS EMISSION BY A MOLECULAR BEAM IN A CAVITY" SENITZKY, 1. R. PRESENTED AT THE 16TH ANNUAL FREQUENCY CONTROL SYMPOSIUM, ATLANTIC CITY, NEW JERSEY, 26 APRIL 1962.
- 58. "ANALYSIS OF THE ELECTROSTATIC FIELD OF A LIGHTNING STROKE" KASEMIR, H. W., PRESENTED AT THE SECOND AMS-AGU SYMPOSIUM ON SFERICS AND THUNDERSTORM ELECTRICITY, WASHINGTON, D. C., 26 28 APRIL 1962.
- THE EFFECTS OF NOISE ON OSCILLATOR FREQUENCY STABILITY" HAFNER, E. (SAFORTA, L., WEISS, G. OF NEW YORK UNIVERSITY),
  PRESENTED AT THE 16TH ANNUAL FREQUENCY CONTROL SYMPOSIUM,
  ATLANTIC CITY, NEW JERSEY, 27 APRIL 1962 AND PUBLISHED IN
  THE PROCEEDINGS.
- 60. "RADAR DETERMINATION OF THE ROOT MEAN SQUARE SLOPE OF THE LUNAR SURFACE" DANIELS, F. B., PRESENTED AT THE URSI MEETING, WASHINGTON, D. C., 30 APRIL 1962.
- 61. "OPPORTUNITY THROUGH SOLID STATE DEVICES" MEINDL, U., PRE-SENTED AT THE ASME DESIGN ENGINEERING CONFERENCE, CHICAGO, ILLINOIS, 30 APRIL 1962.
- 62. "RADAR DATA OSCILLOGRAPHIC DISPLAYS" ABBOTT, N. A., PUBLISHED IN ELECTRICAL DESIGN NEWS, APRIL 1962.
- 63. "Space Communications" Kedrowsky, G., published in Space/Aeronautics, April 1962.
- 64. "Continuous Wave Radar With High Range Resolution and Unam-Biguous Velocity Determination" - Craig, S., Fishbein, W., Rittenbach, O., published in IRE Transactions on Military Electronics, April 1962.

- 65. "OPTIMUM PRE-EMPHASIS TO COMBAT NOISE" ZIEGER, H. P. LT., AMOROSO, F. LT., PUBLISHED IN THE PROFESSIONAL GROUP ON INFORMATION THEORY, APRIL 1962.
- 66. "ATOMIC CLOCK DEVELOPMENT IN 1960/61" REDER, F. PUBLISHED IN McGraw Hill's 1962 YEAR BOOK ON SCIENCE AND TECHNOLOGY.
- 67. "THE IMPACT OF SCIENCE ON THE WORLD TODAY" BISER, E., PRESENTED AT MONMOUTH COLLEGE, WEST LONG BRANCH, NEW JERSEY, April 1962.
- 68. "CHARACTERISTICS AND POTENTIAL OF OPTICAL MASERS" LEIFSON, O.S. LT, PRESENTED BEFORE THE ARMY SCIENCE ADVISORY PANEL, FIRE POWER SUB-PANEL, FORT RUCKER, ALABAMA, APRIL 1962.
- 69. "NATURAL TOLERANCE LIMITS OF DOPPLER MEASUREMENTS OF OUTER-SPACE RADIO SIGNALS" ARENDT, P. R., PRESENTED AT URSI MEETING, WASHINGTON, D. C., 2 May 1962.
- 70. "Reducing Weight and Size of Products Through Solid State Devices"
  Meindl, J. D., Tobman, M., published in the Proceedings of ASME
  Design Engineering Conference, 30 April 3 May 1962.
- 71. "PROPERTIES OF SEVERAL BORON PHOSPHATE-SILICA DEVITRIFIED COMPOSITION" DIVITA, S. (KIM, Y. S. OF BTL LABS; SMOKE, E. J.
  OF RUTGERS UNIVERSITY), PRESENTED AT THE AMERICAN CERAMIC
  SOCIETY MEETING, NEW YORK, 30 APRIL 3 May 1962.
- 72. "THE SENSIOMETRIC CHARACTERISTICS OF MICRO-IMAGES" LEVY, M., PRESENTED BEFORE THE SOCIETY OF PHOTOGRAPHIC SCIENTISTS AND ENGINEERS, BOSTON, MASS, 7 MAY 1962.
- 73. "RAPID STABILIZATION PROCESSING WITH AFD-25, ACETIC ACID AND THIOUREA" LUCAS, C., Hodes, H., Presented Before the Society of Photographic Scientists and Engineers, Boston, Mass., 7 May 1962, Published in Photographic Science and Engineering, September-October 1962.

- 74. "APPLICATION OF ELASTOMERS TO SIGNAL CORPS EQUIPMENT" LICHTENSTEIN, D., PRESENTED AT THE ARMY ELASTOMER MEETING,
  REDSTONE APSENAL, HUNTSVILLE, ALABAMA, 8 MAY 1962.
- 75. "PLASTICS IN THE SPACE ENVIRONMENT" LINDEN, E., PEABODY, C., LASCARO, C., PRESENTED BEFORE SOCIETY OF PLASTIC ENGINEERS, Inc., Newark, New Jersey, 8 May 1962.
- 76. "Design of Broadband Ferrite Load Isolators" Freiberg, E., presented at the Electronic Components Conference, Washington, D. C., 9 May 1962.
- 77. "New Broadband RF Conhectors" Pomerantz, M., Mayo, W., (Janowiak, R. M, Armour Research Found.), presented at the Electronic Components Conference, Washington, D. C. 9 May 1962.
- 78. MSOURCES OF POSITIVE TONS FOR SPACE CHARGE NEUTRALIZATION AT LOW TEMPERATURES" SCHNEIDER, S., CREEDON, J. E., (LAUBENSTEIN, R., PINCKNEY, K, KAPLAN, D. OF MARQUARDT CORP) PRESENTED AT THE SYMPOSIUM ON THERMIONIC POWER CONVERSION, COLORADO SPRINGS, COLORADO, 17 MAY 1962.
- 79. "STATUS REPORT ON ELECTRICAL CONVERSION" BYRNES, H., PRESENTED AT THE 16TH ANNUAL POWER SOURCES CONFERENCE, ATLANTIC CITY, NEW JERSEY, 22 24 MAY 1962, AND PUBLISHED IN THE PROCEEDINGS.
- 80. "CATHODE GRID PHENOMENA IN HYDROGEN THYRATRONS" CREEDON, J.E. SCHNEIDER, S., CANNATA, F., PRESENTED AT THE 7TH SYMPOSIUM ON HYDROGEN THYRATRONS AND MODULATORS, FORT MONHOUTH, NEW JERSEY, 22 24 May 1962.
- 81. "SEALED CADMIUM-SILVER OXIDE BATTERIES" FRINK, A. M., PRE-BENTED AT THE 16TH ANNUAL POWER SOURCES CONFERENCE, ATLANTIC CITY, NEW JERSEY, 22 - 24 MAY 1962 AND PUBLISHED IN THE PROCEEDINGS.
- 82. "Research in New Materials and Technologies for Solar Cells" Kesperis, J., presented at the 16th Annual Power Sources Conference, Atlantic City, New Jersey, 22 24 May 1962, and published in the Proceedings...

- 83. "Organic Ion-Exchange Membranes" Perry, J., Presented at the 16th Annual Power Sources Conference, Atlantic City, New Jersey, 22 24 May 1962 and published in the Proceedings.
- 84. "A VERSATILE ELECTRONIC CROWBAR" SCHNEIDER, S., ZINN, M.H. BUFFA, A. J., PRESENTED AT THE 7TH SYMPOSIUM ON HYDROGEN THYRATBONS AND MODULATORS, FORT MONMOUTH, NEW JERSEY, 22 24 May 1962.
- 85. "Low Temperature Primary Batteries" Settembre, E., Wood, D. B., presented at the 16th Annual Power Sources Conference, Atlantic City, New Jersey, 22 24 May 1962 and published in the Proceedings.
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- 87. "ELECTROFLUORESCENCE OF RARE EARTH ACTIVATED A1203" ADAMS, 1. MELLICHAMP, J., PUBLISHED IN THE JOURNAL OF CHEMICAL PHYSICS, MAY 1962.
- 88. "Pressure Measurements Above I Micron using Commerical Ionization Gauges" Buser, R., Sullivan, J. J., published in the Review of Scientific Instruments, May 1962.
- 89. "On the Polarization of the Manganese Dioxide Electrode" Kornfeil, F., published in the Journal of the Electro-chemical Society, May 1962.
- 90. "Some Studies of the Effect of High Pressure on a Lithia-Alumina-Silica Glass" Giardini, A. A., Tydings, J. E., (Eppler, R. A. of Corning Glass Works, NY), published in the Journal of the American Ceramic Society, May 1962.
- 91. "FIFTY YEARS OF TEACHING MACHINES" ZAHL, H. A., PUBLISHED IN THE PROCEEDINGS OF THE IRE, MAY 1962.

- 92. "PBC Vector, Critical Bond Energy Ratio and Crystal Equilibrium Form" Wolff, G. A., Gualtieri, J. G., Published in the American Mineralogist, May-June 1962.
- 93. "PHOTOTHERMAL EFFECT IN SEMICONDUCTORS" LOSCOE, C., METTE, H. (GAERTNER, W. W., CB5 LABS. CONN), PUBLISHED IN PHYSICAL RE-VIEW, I June 1962.
- 94. "Gross Errors in Height Indication from Pulsed Radar Altimeters Operating Over Thick Ice or Snow" Waite, A. H., Schmidt, S. Published in the Proceedings of IRE, 6 June 1962.
- 95. "Force Transfer, Stress and Rotation Problems" Biser, E., presented at USA Mathematics Research Center, University of Wisconsin, Madison, Wisconsin, 7 June 1962.
- 96. "The Selection Bules of Torsion Vibrations of Symmetric CH3 Top Molecules" Moeller, K. D., Andresen, H. G., presented at the Annual Symposium on Molecular Structure and Spectroscopy, Columbus, Ohio, 13 June 1962.
- 97. "Application of the Convolution Molecule Method to the Crystal Structure of Imidazol" Will, G. Jr., presented before the American Crystallographic Association, Villanova, Pennsylvania, 18 22 June 1962.
- 98. "Nuclear Pulse Effects in Cables" Ikrath, K., presented at the AIEE Meeting, Denver, Colorado, 19 June 1962.
- 99. "POLARIZATION SENSITIVITY AS A DISCRIMINANT FOR CLASSES OF RADAR TARGETS" DUNN, R. L., PRESENTED AT THE 1962 ARMY SCIENCE CONFERENCE, WEST POINT, NEW YORK, 19 22 June 1962, ALSO PUBLISHED IN THE PROCEEDINGS.
- ROO. ROOMBAT SURVEILLANCE CORRELATION RADAR" FISHBEIN, W., RITTENBACH, O. E., PRESENTED AT THE 1962 ARMY SCIENCE CONFERENCE, WEST POINT, NEW YORK, 19 22 JUNE 1962, ALSO PUBLISHED IN THE PROCEEDINGS.
- 101. "Investigation on a Beam Waveguide for Optical Frequency" Goubau, G., Christian, J. R., presented at the 1962 Army
  Science Conference, West Point, New York, 19 22 June 1962,
  Also Published in the Proceedings.

- 102. "Effect of Additional Radiation on the Infrared-Transmittance of Boron" Patty, R. R. Lt., Gaule, G. K., presented before the American Physical Society, Evanston, Illinois, 19 21 June 1962.
- 103. "Ultra High Pressure-High Temperature Research: A Frontier in the Quest for New Electronic Materials" Giardini, A. A., Kohn, J. A., presented at the 1962 Army Science Conference, West Point, New York, 19 22 June 1962, published in the Proceedings.
- 104. "Fast Wave Radiators" Hatkin, L., Presented at the 1962 Army Science Conference, West Point, New York, 19 22 June 1962, published in the Proceedings.
- 105. Winds and Atmosphere Turbulence at Very High Altitudes" Lowenthal, M., presented at the 1962 Army Science Conference,
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- 106. "Effects of lonizing Radiation on Pyridine" Pearce, C. K., presented at the 1962 Army Science Conference, West Point, New York, 19 22 June 1962, published in the Proceedings.
- 107. "Magnetic and Telluric Detection of High Altitude Nuclear Explosions" Ramm, W. J., presented at the 1962 Army Science Conference, West Point, New York, 19 22 June 1962, published in the Proceedings.
- 108. "ARTIFICIAL TONOSPHERES" SHARP, C., PRESENTED AT THE 1962
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  1962, Published in the Proceedings.
- "GROWTH OF HEXAGONAL FERRITE SINGLE CRYSTALS FOR APPLICATION AT MICROWAVE AND MILLIMETER-WAVE FREQUENCY" TAUBER, A., SAVAGE, R., PRESENTED AT THE 1962 ARMY SCIENCE CONFERENCE, WEST POINT, NEW YORK, 19 22 June 1962, Published in the Proceedings.

- 110. "Exploring the Antarctic with Ice-Sounding Radar" Waite, A.H., Schmidt, S. J., presented at the 1962 Army Science Conference, West Point, New York, 19 22 June 1962, published in the Proceedings.
- 111. "A SINGLE-PULSE RUBY LASER FOR RANGING APPLICATIONS" BENSON, R.C., GODWIN, R.O. LT, MIRARCHI, M. R. PRESENTED AT THE 1962 ARMY SCIENCE CONFERENCE, WEST POINT, NEW YORK, 19 22 JUNE 1962, PUBLISHED IN THE PROCEEDINGS.
- 112. "LASER PROGRESS AND APPLICATIONS" MERRILL, H. J. PRESENTED AT THE 1962 ARMY SCIENCE CONFERENCE, WEST POINT, NEW YORK, 20 June 1962, Published in the Proceedings.
- 113. "FAST RESPONSE SOLID STATE PME DETECTOR FOR LASER SIGNALS" BOATRIGHT, A., METTE, H., PRESENTED AT THE 1962 ARMY SCIENCE
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- 115. "Applications of Statistical Communication Theory" Goldberg, B. presented at the 1962 Army Science Conference, West Point, New York, 21 June 1962, published in the Proceedings. Also presented at the Sth National Communications Symposium, Rome Air Development Center, Utica, New York, 1 3 October 1962.
- 116. "The Attenuation of Radiowaves Propagated Through the Region of a High Altitude Nuclear Exflosion" McAfee, W. A., Presented at the 1962 Army Science Conference, West Point, New York, 22 June 1962, Published in the Proceedings.
- 117. "TIN TRANSFORMATION OF TINNED COPPER WIRE" SPERGEL, J., PRE-SENTED AT THE ANNUAL MEETING OF ASTM, NEW YORK, 24 June 1962.
- 118. "Application of High Density Electronic Packaging Systems" Elders, D., presented at the 6th National Military Electronic Conference, Washington, D. C., 25 27 June 1962.

- 119. "RECENT DEVELOPMENTS AND APPLICATIONS OF RF FERRITES FOR MILITARY COMMUNICATIONS" MALINOFSKY, W., PRESENTED AT THE 6TH NATIONAL ELECTRONICS CONFERENCE, WASHINGTON, D. C., 25 27 June 1962.
- 120. "DIE TEMPERATURKOEFFIZIENTEN HOMERER ORDNUNG DER ELASTIZITATSMODULN UND ELASTIZITATSKOEFFIZIENTEN VON ALPHAQUARZ" (TRANSLATION: HIGHER ORDER TEMPERATURE COEFFICIENT
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  BEGHMANN, R., PUBLISHED IN ARCHIV D. ELEKTR. UBERTRAGUNG
  16, 1962 (June) 307-313, A TECHNICAL PERIODICAL IN GERMANY.
- 121. "GEOPHYSICAL FACTORS IN ELECTROMAGNETIC PROPAGATION THROUGH THE LITHOSPHERE" LEVIN, S. B., PRESENTED AT MEETING OF CHIEF SIGNAL OFFICER'S ADVISORY COUNCIL, PENTAGON, JUNE 1962, AND AT THE NORTH EASTERN RADIO AND ELECTROMICS MEETING (IRE), BOSTON, MASS, NOVEMBER 1962 AND PUBLISHED IN THE RECORD.
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  BERKELEY-CARTERET HOTEL, ASBURY PARK, NEW JERSEY
  10 11 May 1962
- 7th Symposium on Hydrogen Thyratrons and Modulators
  Hexagon, USAELRDL, Fort Monmouth, New Jersey
  22 24 May 1962
- 16th Annual Power Sources Conference Shelbourne Hotel, Atlantic City, New Jersey 22 - 24 May 1962
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- 8th Tri-Service Conference on Electromagnetic Compatibility Chicago, Illinois:
  30 October 1 November 1962
- 11th Annual Wire and Cable Symposium
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